



Existing Project Conditions

General Conditions Estimate

The Center for Health Research and Rural Advocacy is constructed under the supervision of the Geisinger Facilities Division. The project team develops a general conditions cost estimate for the main reason of tracking expenses throughout the course of the project. Once an accurate estimate has been established by the team, it is submitted to the Geisinger Health System Board of Directors for approval. If approved, the general conditions costs are added to the job cost system and are monitored closely during construction. Often times the initial general conditions are a bit inflated, as to guarantee money is given back to the Health System at the completion of the job. It is difficult to garner more general conditions funding once the project has commenced.

Another interesting aspect of the general conditions for the CHRRA is that Geisinger Facilities does not charge a fee on top of the base costs. This clearly shows the contractual connection between Geisinger Facilities and the Geisinger Health System. The Facilities management team operates as a salary driven entity, and does not make additional profits on a successful project or incur losses.

Project management travel and facilities are already provided to the Facilities team by the Health system. The operation headquarters is located within walking distance of the project site which minimizes actual on-site facilities. A small office trailer housing drawings, small tools, safety equipment, etc. is all that is located on site. The three portable toilets are spread across the site for easy access for all.

The general conditions estimate will be used to assess savings from schedule reduction in the later analyses. A month reduction in schedule would equate to almost \$40,000 in savings. Please refer to following table for the general conditions breakout for the Center for Health Research and Rural Advocacy project.



General Conditions Estimate

Code	Description	Quantity	Labor	Material	LS	Total
Project Management						
PM001	Director of Construction (1)	4 months	\$8,200	\$0	\$0	\$32,800
PM002	Project Manager (1)	21 months	\$6,400	\$0	\$0	\$134,400
PM003	Superintendent (1)	21 months	\$4,960	\$0	\$0	\$104,160
PM004	Project Engineer (1)	Hourly (500)	\$36 / hr	\$0	\$0	\$18,000
PM005	CPM Schedule	LS	\$0	\$0	\$4,852	\$4,852

Temporary Utilities						
T001	Job Telephone	21 months	\$0	\$75 / mo	\$0	\$1,575
T002	Trailer Electric	21 months	\$0	\$210 / mo	\$0	\$4,410
T003	Temporary Heat	4 months	\$0	\$1,045 / mo	\$0	\$4,180
T004	Fire Protection	12 months	\$0	\$280 / mo	\$0	\$3,360
T005	Air Compressor (2)	21 months	\$0	\$325 / mo	\$0	\$13,650
T006	Temp Generators (2)	21 months	\$0	\$1,216 / mo	\$0	\$51,072

Equipment						
E001	Mobile Crane	11 months	\$0	\$12,200 / mo	\$0	\$134,200
E002	Jobsite Forklift (2)	21 months	\$0	\$700 / mo	\$0	\$29,400
E003	Jobsite Trailer	21 months	\$0	\$380 / mo	\$0	\$7,980
E004	Equipment Hoist	4 months	\$0	\$2600 / mo	\$0	\$10,400
E005	Scissor Lifts (3)	12 months	\$0	\$900 / mo	\$0	\$32,400

Site Safety & Prep						
SS001	Temporary Fence	LF (900 FT)	\$2 / LF	\$12 / LF	\$0	\$12,600
SS002	Temporary Road	SQYD (60)	\$1.20 / SQYD	\$4 / SQYD	\$0	\$312
SS003	Job Signs	EA (6)	\$275 / EA	\$115 / EA	\$0	\$2,310
SS004	Clean Up	SF (67,200)	\$0.5 / SF	\$0	\$0	\$33,600
SS005	Trash Removal	CY (200)	\$32 / CY	\$4 / CY	\$0	\$7,200
SS006	Trash Chutes	Floors (3)	\$0	\$0	\$642	\$642



<i>Miscellaneous Materials & Supplies</i>						
MM001	Management Phones (2)	21 months	\$0	\$65 / mo	\$0	\$2,730
MM002	Trailer Supplies	21 months	\$0	\$220 / mo	\$0	\$4,620
MM003	Portable Toilet (3)	21 months	\$0	\$80 / mo	\$0	\$5,040
MM004	First Aid Supplies (2)	LS	\$0	\$0	\$460	\$460
MM005	Safety Supplies	LS	\$0	\$0	\$820	\$820
MM006	Drawing Reproduction	LS	\$0	\$0	\$4,500	\$4,500

<i>Permits, Bonds, Insurance, & Testing</i>						
PT001	Occupancy Permits	LS	\$0	\$0	\$950	\$950
PT002	Land Permits	LS	\$0	\$0	\$1,350	\$1,350
PT003	Bonds	N/A	\$0	\$0	\$0	\$0
PT004	Insurance	N/A	\$0	\$0	\$0	\$0
PT005	System Testing & Certification	LS	\$0	\$0	\$122,600	\$122,600

					Labor Subtotal	\$332,861
					Material Subtotal	\$317,538
					Miscellaneous Subtotal	\$136,174
					Fee (0%)	\$0

General Conditions Grand Total **\$786,573**

Monthly Billing (21 months) **\$37,456**



Schedule Summary

Some interesting aspects of the project schedule include the phasing of the structural cast-in-place concrete. The reason for this is due to that Geisinger Facilities is self performing half the work and subcontracting the rest. The first pour will be used by the Geisinger Facilities to manage the quality control and schedule of the subcontracted group. Once Geisinger Facilities feels the output is acceptable, two separate teams will begin pouring on separate portions and working towards the auditorium.

Structural erection will occur during two phases, with the second phase incorporating two different crane locations. The east wing of the center will be constructed first with the crane stationed outside the sheeting and shoring system. Once complete, the crane will move inside Centre Street and erect half the west wing and then move one more time to finish the structural steel.

Building envelope construction will be completed in two sections. The curtain wall subcontractor will erect the framing system of the aluminum mullions and beams. Once complete, the glazing and sealants will be installed to finish the building enclosure. This sequence will be explored in the second technical analysis and expanded upon.

The rest of the schedule is fairly standard. The interior spaces will start on the ground floor since there is a minimal amount of finish work on that floor. Once this is completed, finishes will start on the second floor and work down towards the lower level dumpsters and loading dock. This will keep crews and trash moving away from already finished areas and will minimize punch-list items and damage to finished work. The recreational room is designated as the last room because it does not require extensive finishes and may be used as an interior equipment staging area.

Appendix D contains the summary schedule discussed in this section. Please reference for additional insight into the sequencing of the Center for Health Research and Rural Advocacy.



Site Logistics

Site planning for this project is extremely important due to the fully operational Centre Street and the proximity of the Weis Research Center. The expansive footprint of the Center for Health Research and Rural Advocacy requires three separate lift points for the crane. Careful consideration must be made by the geo-technical engineers to ensure that the sheeting and shoring system can maintain the added load of a close proximity pick point. The restriction of the site also requires two separate staging areas for the structural steel which will increase costs and management headaches to manage traffic patterns.

The three crane locations are necessary due to the site restrictions. Close proximity to the Weis Research Center and Geisinger Hospital make crane placement and lift operation extremely difficult. Productivity of lifts will be tested with narrow passageways between buildings for the first pick location. Even though the project is schedule for structural steel erection in two phases, the relocation of the crane from position two to three will not be difficult, since both locations can use the same staging area.

The material hoists, loading dock, and dumpsters are all located on the lower level at the open recreational room. The dumpsters may be extensive depending on the LEED certification desired for the project. Not only do costs increase with trying to achieve the recycling points, but site logistics needs to be reworked to include all the necessary dumpsters and recycling bins. Additional traffic considerations for recycling bins will be coordinated closely to ensure normal construction activities are not interrupted.

The concrete trucks park adjacent to the material auditorium and will have piping to the east portion of the building as well as the west. Trucks will follow this scheme throughout the elevated slab pours and a temporary roadway will be put in place to maintain the constant traffic flow. Please reference the site plan for the superstructure on the following page for more insight into the truck routes, crane placements, and dumpster locations.

Site plans of superstructure erection are also located in Appendix D for easy reference.